

REMARKS

Claims 1-9 are pending and stand rejected, and claim 11 stands withdrawn. Claim 1 is amended herein to replace “represent” with “are,” “form,” or “come together to form,” to correct “R₄₁” in line 9 to read “R₄₁,” to recite that n is an integer from 4 to 6, and to recite each of R₂₁ and R₂₂, R₃₁ and R₃₂, and R₄₁ and R₄₂ independently form a non-cyclic structure without bonding to each other, or form a cyclic structure by bonding to each other through a linear alkylene group having a chain length of 1 to 5 carbons, a linear alkylene chain having a chain length of 1 to 5 carbons and having attached thereto a branched chain of 3 to 6 carbon atoms, or a linear alkylene chain having a chain length of 1 to 5 carbons and having attached thereto a cyclic structure of 1 to 6 carbon atoms. Claim 1 also has been amended to incorporate the language of claim 2, which is cancelled without prejudice. Claim 11 is amended to remove the reference to claim 2. Support for the amendments presented herein can be found in Applicants' specification at, for example, page 14 lines 10-12, which state that n can be 4 to 6. Thus, no new matter has been added.

In light of these amendments and the following remarks, Applicants respectfully request reconsideration and allowance of claims 1 and 3-9. Applicants further request rejoinder and allowance of claim 11.

Claim Objections

The Examiner objected to claims 1-9, asserting that the term “represent,” while understood, should be stated in a manner to indicate that R₁₁, R₂₁, R₃₁, R₄₁ is a hydrogen, a linear alkyl group, etc. The Examiner also stated that “R₄₁” should be corrected to read “R₄₁.” In addition, the Examiner asserted that the substituents in claim 2 are not clearly labeled, as text such as “COOMe” is offset from the drawn structure, and the bonding is not clear. The Examiner stated that if the text is intended to be an abbreviation for the structure, it should be offset to the side and away from the intended bond indicator.

Applicants have amended claim 1 to replace the word “represent” with “are,” “form,” or “come together to form,” and to correct “R₄₁” to “R₄₁.” Applicants have incorporated previous claim 2 into present claim 1, but have removed the abbreviations for the structures.

In light of these amendments, Applicants respectfully request withdrawal of the objections to the claims.

Rejections under 35 U.S.C. § 112

The Examiner rejected claims 1-9 under 35 U.S.C. § 112, second paragraph, alleging that they are indefinite. In particular, the Examiner asserted that the terms “carry” and “a range of numbers that enable the compound to have HDAC inhibitory activity” are not understood.

To further prosecution, Applicants have amended claim 1 to replace the term “carrying” with “having attached thereto.” Applicants also have amended claim 1 to recite that n is an integer from 4 to 6. Thus, the present claims are clear and definite.

In light of the above, Applicants respectfully request withdrawal of the rejection of claims 1 and 3-9 under 35 U.S.C. § 112, second paragraph.

The Examiner rejected claims 1-9 under 35 U.S.C. § 112, first paragraph, alleging that they do not comply with the written description requirement. The Examiner asserted that the compound recited in claim 1 is a broad generic, and that:

The possible structural variations are limitless to any class of compound where aspects of the molecule, X in the instant case, is claimed by what it does rather than what it is, i.e., X represents a structural component having a structure that can coordinate with the zinc positioned at the active center of histone deacetylase. (Office Action at page 5.)

The Examiner further asserted that there is no disclosure of a correlation between function and structure for the claimed compounds beyond the examples described in Applicants' specification, and that there is insufficient description of a common core structure for X that would allow one of skill in the art to practice the invention as claimed. In addition, the Examiner asserted that the specification does not describe how to make a cyclic structure with R₂₁ and R₂₂, or R₂₂ and R₂₃, etc., with a chain length of one carbon.

To further prosecution, Applicants have amended claim 1 to incorporate the language of previous claim 2, and to recite that n is an integer from 4 to 6. Thus, X is one of nine particular substituents, and the structure of the recited compound is more particularly recited. In addition,

the function of compounds having each of the recited X substituents is demonstrated in Applicants' specification, as indicated in Tables 1 and 3 at pages 40 and 44, respectively.

Claim 1 as amended also recites that R₂₁ and R₂₂, R₃₁ and R₃₂, and R₄₁ and R₄₂ can form a cyclic structure by bonding to each other through a linear alkylene group having a chain length of 1 to 5 carbons, a linear alkylene chain having a chain length of 1 to 5 carbons and having attached thereto a branched chain of 3 to 6 carbon atoms attached thereto, or a linear alkylene chain having a chain length of 1 to 5 carbons and having attached thereto a cyclic structure of 1 to 6 carbon atoms attached thereto. A person of skill in the art would understand from Applicants' specification that if a cyclic structure is formed between R₂₁ and R₂₂, R₃₁ and R₃₂, or R₄₁ and R₄₂, the structure is formed via a linear alkylene chain having a length of 1 to 5 carbons, with or without an additional branched chain or cyclic structure of carbon atoms attached thereto. For example, in a cyclic structure formed between R₄₁ and R₄₂, R₄₁ can include a single carbon (i.e., a first methylene), R₄₂ can include a single carbon (i.e., a second methylene), and R₄₁ and R₄₂ can be linked via a third methylene group (i.e., a linear alkylene 'chain' having a length of 1 carbon). An example of such a structure is shown in Figure 5 of Applicants' specification. Thus, the specification describes how to make a cyclic structure with R₄₁ and R₄₂, with a chain length of one carbon for each of R₄₁ and R₄₂.

Given the above, it would have been clear to a person of skill in the art that Applicants were in possession of the recited compounds at the time of their priority date. As such, Applicants respectfully request withdrawal of the rejection of claims 1 and 3-9 under 35 U.S.C. § 112, first paragraph.

Rejections under 35 U.S.C. § 102

The Examiner rejected claims 1 and 3-9 under 35 U.S.C. § 102(b), alleging that they are anticipated by EP Publication No. 1010705A1 (the Yoshida et al. publication). The Examiner asserted that the Yoshida et al. publication discloses a compound that reads on the compound recited in claim 1. The Examiner further asserted that the functionality of X as taught by Yoshida et al. "must function as a structural component having a structure that can coordinate with the zinc positioned at the active center of histone deacetylase because the compounds are disclosed as being histone deacetylase inhibitors." Office Action at page 8. In addition, the

Examiner asserted that despite the preambles of claims 3-9, the compound recited therein is still the compound of claim 1.

To further prosecution, Applicants have amended claim 1 to incorporate the language of previous claim 2, which is not included in this rejection. Given this amendment, Applicants submit that the rejection for alleged anticipation is moot.

In light of the above, Applicants respectfully request withdrawal of the rejection of claims 1 and 3-9 under 35 U.S.C. § 102(b).

Request for Rejoinder

Applicants respectfully submit that product claims 1 and 3-9 are in condition for allowance. Applicants therefore request that claim 11, which recites a process for making the product of claim 1, be rejoined.

CONCLUSION

Applicants submit that claims 1 and 3-9 are in condition for allowance, which action is respectfully requested. Applicants further request rejoinder and allowance of claim 11. The Examiner is invited to telephone the undersigned agent if such would further prosecution.

Please apply any charges or credits to deposit account 06-1050.

Respectfully submitted,

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